ABSTRACT OF THE DISCLOSURE

For crystallizing an amorphous semiconductor film by means of irradiation of laser beams, a top surface and a back surface of the amorphous semiconductor film are irradiated with the laser beams. In this case, an effective energy intensity I_o of the laser beams to be applied onto the top surface and an effective energy intensity I_o' of the laser beams to be applied onto the back surface satisfy the relationship of $0 < I_o'/I_o < 1$ or $1 < I_o'/I_o$. Thus, a laser annealing method capable of providing a crystalline semiconductor film with large grain diameters can be provided.